

THREE NEW GENERA AND SIX NEW SPECIES OF COLPURINI (HETEROPTERA: COREIDAE) FROM NEW GUINEA

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Abstract.—Three new genera and six new species from New Guinea are described in the tribe Colpurini (Coreidae). Habitus illustrations and drawings of the male and female genitalia, as well as head and pronotum are provided.

Key Words: Insecta, Heteroptera, Coreidae, Colpurini, new genera, new species, New Guinea

The tribe Colpurini morphologically is a very strange group. The condition of the female abdominal sternite VII can be separated into two types: with plica and fissura and the second entirely without plica or fissura. It is to the latter group that the three genera here proposed belong.

A closer inspection of important morphological characters in the material at our disposal indicates that the generic limits are much broader than previously supposed. Moreover, we have discovered that many species actually do not fit the diagnoses of the genera they were conventionally assigned. This paper is a continuing effort to revise the tribe Colpurini to make identifications possible and also stimulate the study of their biology in a wide sense, including habitat choice, life cycle, diet etc. (Brailovsky 1990, Brailovsky, et al. 1992).

In this paper, three new genera are erected for six new species collected in New Guinea.

The following abbreviations are used for the institutions cited in this paper: BPBM (Bernice P. Bishop Museum, Honolulu, Hawaii); CAS (California Academy of Sciences, San Francisco, California); UNAM (Instituto de Biología, Universidad Nacional Autónoma de México, México D.F.);

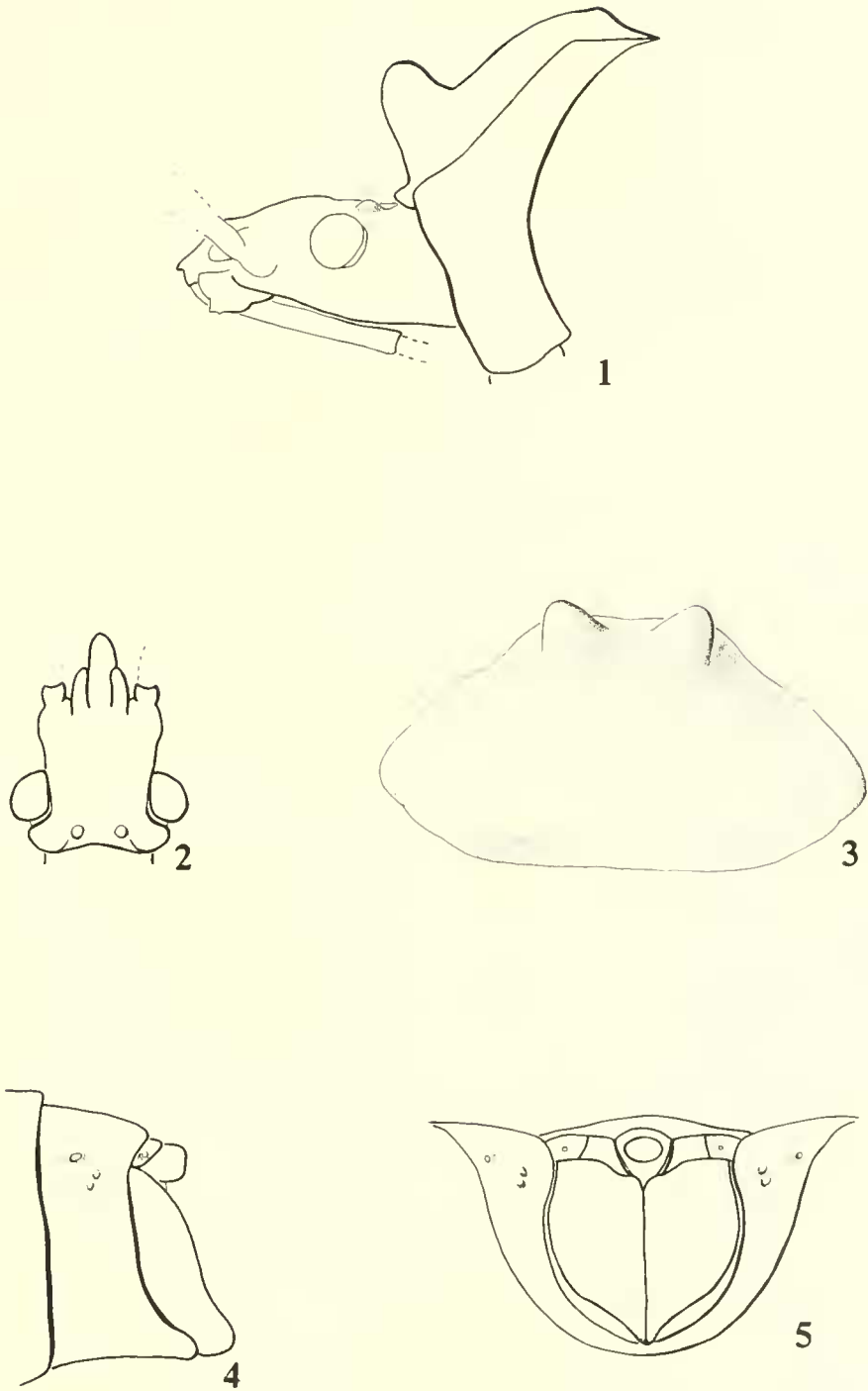
QMBA (Queensland Museum, Brisbane, Australia); RNHL (Rijksmuseum van Natuurlijke Historie, Leiden, Netherlands); HNHM (Hungarian Natural History Museum, Budapest).

All measurements are given in millimeters.

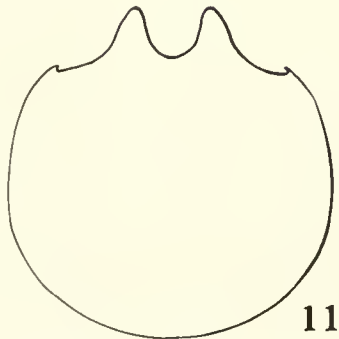
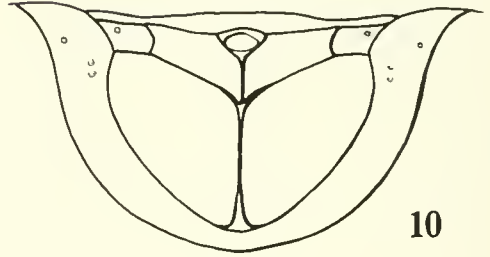
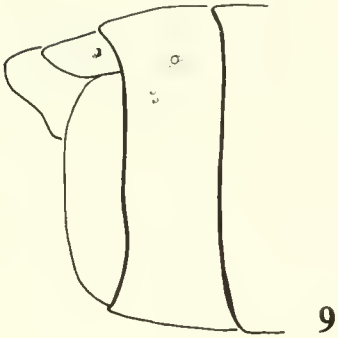
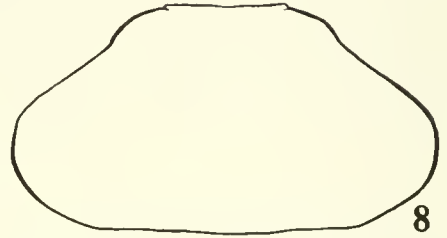
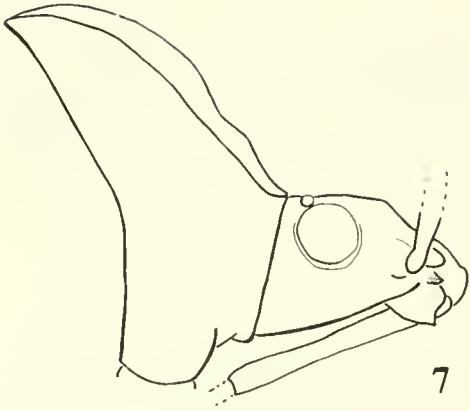
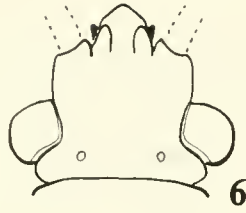
Ashlockhygia Brailovsky and Ortega, NEW GENUS

Diagnosis.—Like *Sciophyrus* Stål, *Ashlockhygia* is rounded buccula, with sharp mesal projection, the tylus is globose and apically bidentate, the antenniferous tubercle unarmed, the pronotum is not bilobed, the humeral angles are rounded and not exposed and no plica or fissura on abdominal sternite VII of females.

The two genera can be separated on the basis of the following combination of characters. In *Ashlockhygia* the pronotal calli are remarkably raised above the surface, each forming a large conical prominence (Figs. 1, 3), the mandibular plate is unarmed, the scutellum wider than long and ventrally gonocoxa I is projected into broad medium-sized lobes (Figs. 4, 5). In *Sciophyrus* the calli are just weakly convex, the mandibular plate is usually expanded into short lateral



Figs. 1-5. *Ashlockhygia conica*. 1, Head and pronotum in lateral view. 2, Head in dorsal view. 3, Pronotum. Figs. 4, 5. Female genital plates. 4, Lateral view. 5, Posterior view.



lobe, the scutellum is longer than wide, and ventrally gonocoxa I is rounded or projected as short blunt lobes.

Generic description.—Head: Longer than wide, pentagonal and dorsally slightly convex; tylus apically globose and bidentate, extending anteriorly to and laterally higher than juga; jugum unarmed, narrowed and shorter than tylus; antenniferous tubercle unarmed; side of head in front of eye unarmed, weakly straight; antennal segment I robust, thickest, slightly curved outward, longer than length of head, extending beyond apex of head by more than half of its total length; segment II cylindrical and slender; segments III and IV absent; ocelli moderately elevated; preocellar pit deep; eyes spherical and prominent; postocular tubercle protuberant, globose; buccula rounded, elevated, short, not extending beyond antenniferous tubercle, with sharp middle projection.

Thorax.—Pronotum wider than long, trapeziform, not bilobed; collar wide; frontal angles produced forward as small rounded expansion; humeral angles rounded, not exposed; calli remarkably raised on a large conical lobe, separated along midline by a short longitudinal furrow (Figs. 1, 3). Anterior lobe of metathoracic peritreme elevated and reniform, posterior lobe sharp, small.

Legs.—Femora armed with two subdistal short spines and few more scattered along ventral surface; tibiae cylindrical, with shallow sulcus.

Scutellum.—Triangular, wider than long; posterior half with a shallow lateral depression; apex curved and subacute.

Hemelytra.—Macropterous, extending to posterior margin of last abdominal segment;

claval suture evident; costal margin emarginated, apical margin straight; membrane with few of the veins furcate.

Abdomen.—Connexival segments higher than margin of hemelytron at rest; posterior angle of each connexival segment complete, not extending on a short spine; abdominal sternite with medial furrow, extending to posterior border of sternite V.

Integument.—Body surface shining, with head, clavus and corium rather dull. Head ventrally, pronotum, scutellum, clavus, corium, thorax, abdominal sterna and exposed parts of genital segments moderately to strongly punctate; head dorsally, apical margin of corium, connexival segments and paratergite VIII and IX practically smooth. Head, pronotum, scutellum, claval and corial veins, thorax and abdominal sternites with short, decumbent silvery bristlelike setae, intermixed with erect setae scattered on the pronotal and scutellar disc; antennal segments and legs covered by long and short setae.

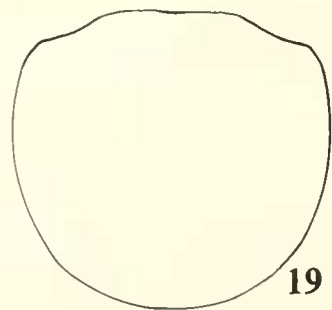
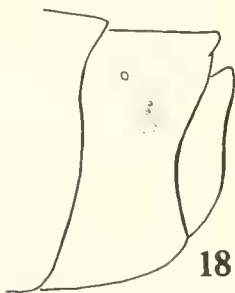
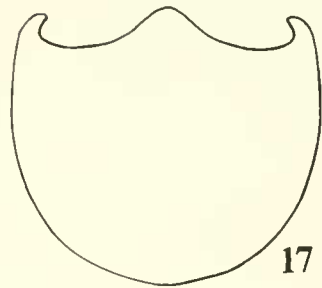
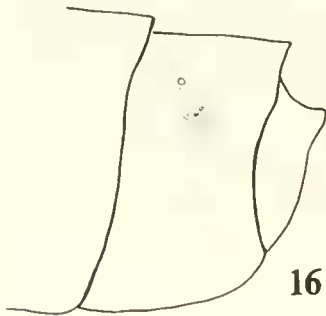
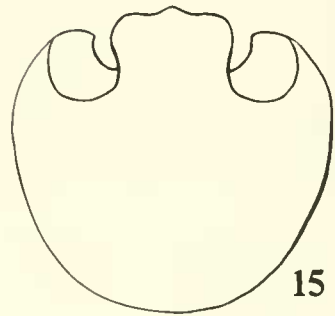
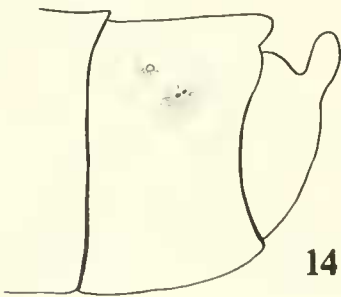
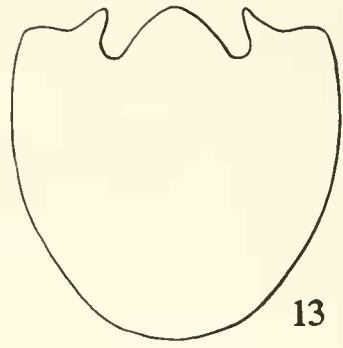
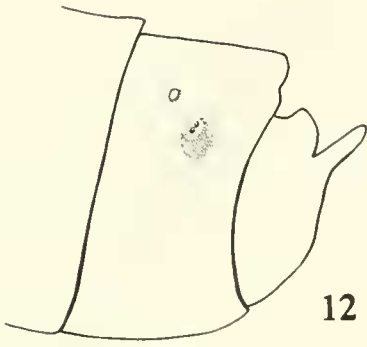
Female genitalia.—Abdominal sternite VII without plica or fissura. Genital plate: Gonocoxa I large, enlarged dorso-ventrally; in caudal view closed; in lateral view with the external face entire, nearly straight, ventrally projected into broad medium-sized lobes; paratergite VIII short, triangular, with visible spiracle; paratergite IX quadrangular (Figs. 4, 5).

Male.—Unknown.

Etymology.—Named for the late Dr. Peter D. Ashlock, distinguished American hemipterist. Gender feminine.

Type species.—*Ashlockhygia conica* Brailovsky and Ortega, new species, here designated.

Figs. 6–11. *Schaeferhygia araucariana*. 6, Head in dorsal view. 7, Head and pronotum in lateral view. 8, Pronotum. Figs. 9, 10, Female genital plates. 9, Lateral view. 10, Posterior view. 11, Male genital capsule in posterior view.



Ashlockhygia conica Brailovsky and Ortega, NEW SPECIES

Figs. 1-5

Description.—Measurements: Female: Head length 1.92; interocular space 1.00; interocellar space 0.42; width across eyes 1.72; preocular distance 1.28; length of antennal segments: I, 1.96; II, 3.12; III and IV absent. Pronotum: Total length 2.28; width across frontal angles 1.56; width across humeral angles 4.16. Scutellum length 1.80; width 1.92. Total body length 11.50.

Female.—Dorsal coloration: Head dark orange red with dorsal aspect of postocular tubercle yellow ochre; antennal segments I and II pale orange yellow; pronotum and scutellum bright red brown, with following areas yellow: some spots scattered on the pronotal disc and apex of scutellum; clavus and corium orange dull with punctures bright red brown; hemelytral membrane amber with veins and basal angle darker; connexival segments II-VIII bright orange red with posterior margin yellow and IX entirely bright orange red; abdominal segments dark red brown. Ventral coloration: Head and thorax bright red brown with following areas chestnut yellow: rostral segments I to IV, acetabulae, irregular spot on the mesopleura and anterior lobe of metathoracic peritreme; abdominal sternites bright red brown on ochre yellow background; abdominal sternites with pleural margin dark red except the posterior margin yellow; coxae bright red orange; trochanters and tarsi bright red orange with chestnut yellow reflections; femora red brown with two yellow rings, one basal the other one near the middle; tibiae alternating two yellow rings with three red brown rings.

Type material.—Holotype ♀, New Guinea, Rattan Camp (1500 m), 13 February

1939, L. J. Toxopeus (Neth. Ind. American New Guinea Expedition) (RNHL).

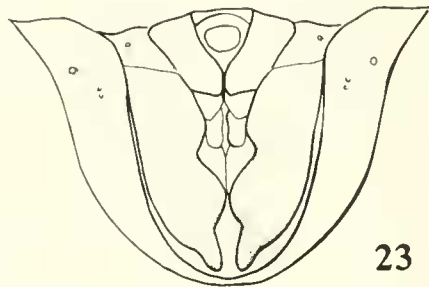
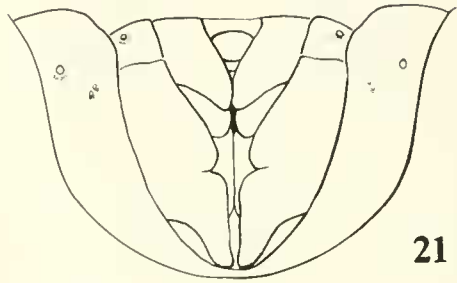
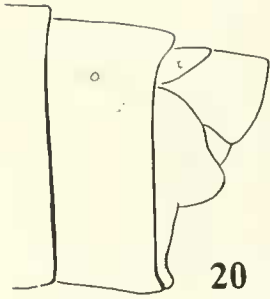
Etymology.—Named for the conical projection of the pronotal calli.

Distribution.—Known only from the type locality, New Guinea.

Ballhygia Brailovsky and Ortega, NEW GENUS

Diagnosis.—Like *Ashlockhygia*, this genus is closely related to *Sciophyrus* Stål. *Ballhygia* possesses some generalized features with these two genera such as abdominal sternite VII of female without plica or fissura, eyes spherical and protuberant, postocular tubercle protruding, frontal angles produced as short rounded projections and gonocoxa I enlarged dorso-ventrally. *Ballhygia* are recognized by the pronotum clearly bilobed, calli prominently or moderately globose and raised above the surface, posterior margin of the genital capsule of male without a small or deep "U" or "V" concavity enclosing by lateral arms (Figs. 12-19) and the gonocoxa I in caudal view always opened, not reaching midline of body and in lateral view the upper margin strongly convex to emarginate and the lower margin concave and slender (Figs. 20-23). In *Sciophyrus* the pronotum is slightly or not bilobed, with the calli not raised above the surface and the gonocoxa I in caudal view closed or opened and in lateral view entire and feebly convex or with upper margin broad, convex and remarkably protrudent and the lower margin slender. In *Ashlockhygia* the pronotum is not bilobed, with the calli remarkably raised on a large conical lobe (Fig. 3) and the gonocoxa I in caudal view closed and in lateral view entire, nearly straight and ventrally projected into broad medium-sized lobes (Figs. 4, 5).

Figs. 12-19. Male genital capsule of *Ballhygia* spp. Figs. 12, 13. *B. globicolla*. 12, Lateral view. 13, Posterior view. Figs. 14, 15. *B. quadrata*. 14, Lateral view. 15, Posterior view. Figs. 16, 17. *B. lobatula*. 16, Lateral view. 17, Posterior view. Figs. 18, 19. *B. papuana*. 18, Lateral view. 19, Posterior view.



Figs. 20-23. Female genital plates of *Ballhygia* spp. Figs. 20, 21. *B. quadrata*. 20, Lateral view. 21, Posterior view. Figs. 22, 23. *B. lobatula*. 22, Lateral view. 23, Posterior view.

Generic description.—Head: Longer than wide, pentagonal and dorsally flat or slightly convex; tylus unarmed, apically bifurcate, with two small lateral teeth or spines, extending anteriorly to and laterally higher than jugs; jugum unarmed, narrowed and

shorter than tylus; antenniferous tubercle unarmed; side of head in front of eye unarmed and straight; antennal segment I robust, thickest, slightly curved outward, longer than maximum length of head surpassing apex of head by more than half of its total

length; segments II and III cylindrical, slender; segment IV fusiform; segment II longest, segment IV the shortest and I longer than III; ocelli elevated; preocellar pit deep; eyes spherical, protuberant; postocular tubercle protuberant, globose; buccula elevated, short, not extending beyond antenniferous tubercle, with sharp middle projection; rostrum reaching anterior or middle third of abdominal sternite VI; rostral segment I cylindrical, stout, reaching posterior gular region or beyond the prosternal border; segment II slightly curved, laterally flattened; segments III and IV cylindrical, slender; rostral segment IV longest, segment I shortest and II subequal to III.

Thorax.—Pronotum wider than long, trapeziform, clearly bilobed; anterior lobe shorter than posterior lobe, each margin convexly rounded, emarginate and moderately elevated; collar wide; frontal angles produced forward as short rounded projections; humeral angles rounded, not expanded; posterolateral border straight; posterior border slightly concave; calli prominently or moderately globose, separated along midline by a short longitudinal furrow; posterior lobe with two lateral projections near posterior margin. Anterior lobe of metathoracic peritreme elevated and reniform, posterior lobe sharp, small.

Legs.—Unarmed; tibiae cylindrical, with shallow sulcus.

Scutellum.—Triangular, longer than wide, almost flat; posterior half with a shallow lateral depression; apex curved and acute.

Hemelytra.—Macropterous, extending to the posterior margin of the last abdominal segment; claval suture evident; costal margin emarginate and apical margin straight; membrane with a few of the veins furcate.

Abdomen.—Connexival segments higher than margin of hemelytron at rest; posterior angle of each connexival segment not extended into a short spine; sternite with medial furrow, extending to posterior border of sternite V or VI.

Integument.—Body surface rather dull.

Head ventrally, pronotum, scutellum, clavus, anterior half of corium, thorax, abdominal sterna and exposed parts of genital segments of both sexes moderately to strongly punctate; head dorsally, posterior half of corium, connexival segments and paratergite VIII and IX practically smooth. Head, pronotum, scutellum, claval and corial veins, thorax and abdominal sternites with short, decumbent, silvery, bristlelike setae; antennal segments and legs with long and short setae.

Male genitalia.—Genital capsule: posterior margin entire, rounded (Figs. 18, 19) or expanded anteriorly into 1) large inflated, exposed, more or less acute median projection (Figs. 12, 13) or 2) square, exposed median projection (Figs. 14, 15) or 3) with shallow triangular median plate (Figs. 16, 17). The last three conditions are delimited laterally by a concave depression.

Female genitalia.—Abdominal sternite VII without plica or fissura. Genital plates: Gonocoxa I enlarged dorsoventrally; open in caudal view; in lateral view the external face has the upper margin broad, convex but not protruding, lower margin slender or elongate, ventrally projected into small or large blunt lobes; paratergite VIII short, triangular, with a visible spiracle; paratergite IX quadrangular (Figs. 20–23).

Etymology.—We are pleased to name this new genus for Dr. George E. Ball distinguished Canadian coleopterist. Gender feminine.

Type species.—*Ballhygia globicolla* Brailovsky and Ortega, new species.

***Ballhygia globicolla* Brailovsky and Ortega, NEW SPECIES**

Figs. 12, 13, 25

Description.—Measurements: Male: Head length 2.08; interocular space 1.04; interocellar space 0.52; width across eyes 1.80; preocular distance 1.56; length of antennal segments: I, 2.12; II, 2.88; III, 1.88; IV, 1.56. Pronotum: Total length of anterior lobe 0.96; total length of posterior lobe 1.32;

total width of anterior lobe 2.32; total width of posterior lobe 3.84. Scutellar length 1.96; width 1.72. Total body length 12.00.

Female: Head length 2.24; interocular space 1.16; interocellar space 0.64; width across eyes 2.00; preocular distance 1.68; length of antennal segments: I, 2.40; II, 3.60; III, 2.16; IV, 1.76. Pronotum: Total length of anterior lobe 1.20; total length of posterior lobe 1.60; total width of anterior lobe 2.64; total width of posterior lobe 4.40. Scutellar length 2.08; width 1.92. Total body length 14.05.

Male.—Dorsal coloration: Head, scutellum, clavus, corium and connexival segments III to VII red brown with following areas yellow ochre: longitudinal band running between eyes and ocelli, dorsal aspect of postocular tubercle, apex of scutellum and posterior margin of connexival segments III to VII; antennal segments I to III orange red and IV bright yellow with basal and apical third orange red; pronotum red brown with irregular ochre yellow reflections, calli darker; hemelytral membrane dirty yellow white with veins, basal angle and some cells pale brown; abdominal segments slightly bright pale orange. Ventral coloration: Head red brown, region near eyes ochre yellow; rostral segments mostly chestnut red brown; IV paler with a yellow ring on basal third; thorax and abdominal sternites red brown on ochre yellow background; genital capsule red brown with lateral corners yellow; anterior lobe of metathoracic peritreme dirty yellow, the posterior lobe chestnut orange red; coxae and trochanters red brown with or without bright orange reflections; femora red brown with two yellow rings, one basal the other one near the middle line; tibiae alternating two yellow rings with three red brown rings; tarsal segment I ochre yellow with bright orange reflections and tarsal segments II and III ochre yellow; abdominal sternites with pleural margins red brown except the yellow posterior third.

Male.—Pronotum: calli moderately raised. Genitalia.—Genital capsule: poste-

rior margin protruding as a large, inflated and exposed conical median plate, laterally delimited by strong bilobate lobes (Figs. 12, 13).

Female.—Similar to male.

Variation.—Hemelytral membrane ambarine with veins and basal angle pale brown; rostral segments I to IV uniformly chestnut red brown.

Type material.—Holotype: ♂, Papua New Guinea, Popondetta, 27 February 1966, G. Monteith (QMBA). Paratypes: 1 ♀, same data as for holotype (QMBA).

Notes.—This species is easily recognized by the large, protruding, inflated and exposed conical median plate on the posteroventral edge of the male genital capsule (Figs. 12, 13).

Etymology.—The name refers to the globose appearance of the genital capsule viewed posteriorly.

Distribution.—Known only from the type locality, New Guinea.

Ballhygia lobatula Brailovsky and Ortega
NEW SPECIES

Figs. 16, 17, 22, 23

Description.—Measurements: Male: Head length 2.28; interocular space 1.04; interocellar space 0.52; width across eyes 1.96; preocular distance 1.54; length of antennal segments: I, 2.44; II, 3.80; III, 2.24; IV, 1.80. Pronotum: Total length of anterior lobe 0.92; total length of posterior lobe 1.84; total width of anterior lobe 2.24; total width of posterior lobe 4.31. Scutellar length 2.20; width 1.80. Total body length 13.06.

Female: Head length 2.48; interocular space 1.08; interocellar space 0.55; width across eyes 2.00; preocular distance 1.60; length of antennal segments: I, 2.84; II, 4.40; III, 2.70; IV, absent. Pronotum: Total length of anterior lobe 1.08; total length of posterior lobe 1.88; total width of anterior lobe 2.56; total width of posterior lobe 4.75. Scutellar length 2.48; width 2.12. Total body length 15.10.

Male.—Dorsal coloration: Head, anterior

lobe of pronotal disc, scutellum, clavus, corium and connexival segments III to VII dark-red brown with or without dark-orange reflections and with following areas yellow: longitudinal band running between eyes and ocelli, basal angles of scutellar disc, apex of scutellum and posterior margin of connexival segments III to VII; antennal segments I to III bright red brown and IV yellow with basal third and apex red brown; posterior lobe of pronotal disc pale red brown with irregular ochre yellow reflections; hemelytral membrane dirty yellow white with veins, basal angle and some cells dark to pale brown; abdominal segments bright pale orange. Ventral coloration: Head red brown with the region adjacent to eyes ochre yellow; rostral segments I to III chestnut red brown, IV paler; thorax and abdominal sternites red brown on an ochre yellow background; genital capsule red brown; anterior lobe of metathoracic peritreme dirty yellow, the posterior lobe chestnut orange red; coxae red brown; anterior and middle trochanters chestnut orange with ochre yellow reflections and posterior trochanters bright ochre yellow; femora red brown with two yellow rings, one basal, the other near the midline; tibiae alternating two yellow rings with three red brown rings; tarsi chestnut red brown with orange to yellow reflections; abdominal sternites with pleural margins red brown except the yellow posterior third.

Male.—Pronotum: calli conspicuously globose and raised. Genitalia.—Genital capsule: Posterior margin protruding as a relatively flat median triangular plate, laterally delimited by a concave depression and with blunt lateral lobes (Figs. 16, 17).

Female.—Similar to male.

Type material.—Holotype: ♂. Papua New Guinea, Fly R. Olsobip (400–600 m), 26 August 1969 J. & M. Sedlacek (BPBM). Paratypes: 1 ♂, 2 ♀, same data as for holotype (BPBM & UNAM).

Notes.—This species is easily recognized by the prominently pronotal calli, as well as

the shape of the posteroventral edge of the male genital capsule (Figs. 16, 17).

Etymology.—The specific epithet of the species is used to refer to the protruding pronotal calli.

Distribution.—Known only from the type locality, New Guinea.

***Ballhygia papuana* Brailovsky and Ortega, NEW SPECIES**

Figs. 18, 19

Description.—Measurements: Male: Head length 2.16; interocular space 1.00; interocellar space 0.51; width across eyes 1.72; preocular distance 1.44; length of antennal segments: I, 2.20; II, 3.36; III, 2.16; IV, 1.60. Pronotum: Total length of anterior lobe 0.92; total length of posterior lobe 1.48; total width of anterior lobe 2.08; total width of posterior lobe 3.48. Scutellar length 1.76; width 1.60. Total body length 11.52.

Male.—Dorsal coloration: Head red brown with a longitudinal band running between eyes and ocelli and the dorsal aspect of postocular tubercle ochre yellow; antennal segments I to III bright red brown, IV yellow with basal third red brown; pronotum red brown with irregular ochre yellow reflections and with calli darker; scutellum, clavus, corium and connexival segments III to VII dark brown, with dark-orange reflections and with following areas ochre yellow: basal angle of scutellar disc, apex of scutellum and posterior margin of connexival segments III to VII; hemelytral membrane dirty yellow white with veins, basal angle and some cells dark brown; abdominal segments bright pale orange. Ventral coloration: Head red brown with the region adjacent to eyes ochre yellow; rostral segments I to III chestnut red brown with orange reflections, IV paler; thorax and abdominal sternites red brown on ochre yellow background; genital capsule red brown with lateral corners yellow; anterior lobe of metathoracic peritreme dirty yellow, the posterior lobe chestnut orange red; coxae red brown; anterior trochanters chestnut red brown and middle



Fig. 24. Dorsal view of *Schaeferhygia araucanana*.

and posterior bright ochre yellow; femora red brown with two yellow rings, one basal, the other near the midline; tibiae alternating two yellow rings with three red-brown rings; tarsi pale chestnut orange.

Male.—Pronotum: calli moderately raised. Genitalia.—Genital capsule: Posterior margin entire and rounded, not protruding (Figs. 18, 19).

Female.—Unknown.

Type material.—Holotype: ♂, Papua New Guinea, Madang Province, Sapi Forest Reserve (Sapi River at confluence with Gogol River) (50 m), 15 March 1989, stop #89-26A, D. H. Kavanaugh, G. E. Ball & N. D. Penny (CAS). Paratype: 1 ♂, New Guinea, Biro 1897, Erima Astrolabe (HNHM).

Etymology.—Named for its occurrence in Papua New Guinea.

Distribution.—Known only from the type locality, New Guinea.

Ballhygia quadrata Brailovsky and

Ortega, NEW SPECIES

Figs. 14, 15, 20, 21

Description.—Measurements: Male: Head length 2.24; interocular space 1.12; interocellar space 0.54; width across eyes 1.92; preocular distance 1.52; length of antennal segments: I, 2.84; II, 4.00; III and IV absent. Pronotum: Total length of anterior lobe 1.04; total length of posterior lobe 1.68; total width of anterior lobe 2.40; total width of posterior lobe 4.32. Scutellar length 2.36; width 2.00. Total body length 13.78.

Female: Head length 2.40; interocular space 1.20; interocellar space 0.55; width across eyes 2.08; preocular distance 1.68; length of antennal segments: I, 2.92; II, 4.44; III and IV absent. Pronotum: Total length of anterior lobe 1.20; total length of posterior lobe 1.68; total width of anterior lobe 2.60; total width of posterior lobe 2.84. Scutellar length 2.48; width 2.24. Total body length 15.42.

Male.—Dorsal coloration: Head, scutellum, clavus, corium and connexival segments III to VII red brown with following

areas yellow ochre: longitudinal band running from the antenniferous tubercles to the neck, included the space between eyes and ocelli and dorsal aspect of postocular tubercle, apex of scutellum and posterior margin of connexival segments III to VII; antennal segments I and II orange red (segments III and IV missing); pronotum red brown on ochre yellow background; hemelytral membrane dirty yellow white with veins and basal angle dark brown; abdominal segments bright pale orange. Ventral coloration: Head red brown with the region next to eyes ochre yellow; rostral segments I to III chestnut red brown, IV somewhat paler; thorax and abdominal sternites red brown on an ochre yellow background; genital capsule entirely red brown; anterior and posterior lobe of metathoracic peritreme chestnut orange red; coxae red brown; trochanters chestnut orange red; femora red brown with two yellow rings, one basal, the other near the midline; tibiae alternating two yellow rings with three red brown rings; tarsi chestnut orange brown; abdominal sternites with pleural margin red brown except posterior third yellow.

Male.—Pronotum: calli moderately raised. Genitalia.—Genital capsule: Posterior margin protruding on a large, inflated and exposed square-shape median plate, laterally delimited by short blunt lobes (Figs. 14, 15).

Female.—Similar to male. Genital plates. Figs. 20, 21.

Type material.—Holotype: ♂, Papua New Guinea, Fly R. Olsobip (400–600 m), August 1969, J. Sedlacek (BPBM). Paratypes: 1 ♂, 2 ♀, Papua New Guinea, Fly R. Olsobip (400–600 m), 26 August 1969, J. & M. Sedlacek (BPBM & UNAM); 1 ♀, Papua New Guinea, N. E. Lae, Singuawa R., 147°10'E, 6°45'S (30 m), April 1966, C. R. Wilkes (BPBM).

Etymology.—Referring to the appearance of the genital capsule viewed posteriorly.

Distribution.—Known only from the type locality, New Guinea.

KEY TO THE KNOWN SPECIES OF
BALLHYGIA

- | | |
|--|--------------------|
| 1. Males | 2 |
| – Females (of <i>papuana</i> not known) | 5 |
| 2. Posterior margin of genital capsule irregularly convex for full width (Fig. 19) | <i>papuana</i> |
| – Posterior margin of genital capsule with median projection (Figs. 13, 15, 17) | 3 |
| 3. Median posterior projection of genital capsule broadly triangular or conical (Figs. 13, 17) ... | 4 |
| – Median posterior projection of genital capsule subquadrate, inflated, laterally weakly concave (Fig. 15) | <i>quadrata</i> |
| 4. Posterior margin of genital capsule with a relatively flat median triangular plate (Fig. 17) ... | <i>lobatula</i> |
| – Posterior margin of genital capsule inflated and exposed like conical median plate (Fig. 13) ... | <i>globoicolla</i> |
| 5. Pronotal calli conspicuously protruding and globose | <i>lobatula</i> |
| – Pronotal calli moderately raised | 6 |
| 6. Gonocoxa I in lateral view, with upper margin broad (Fig. 20) | <i>quadrata</i> |
| – Gonocoxa I in lateral view, with upper margin relatively slender | <i>globoicolla</i> |

Schaeferhygia Brailovsky and Ortega,
NEW GENUS

Diagnosis.—*Schaeferhygia* is related to *Agathyrna* Stål, sharing with it the following characters: Gena armed with a prominent plate, head wider than long, antenniferous tubercles unarmed, scutellum longer than wide and gonocoxa I ventrally rounded without lobes (Figs. 9, 10). The female abdominal sternite VII without plica or fisure.

Members of this new genus are distinguished by the following combination of characters: tylus apically blunt, without a projection, frontal angles of the pronotum feebly rounded and femora unarmed. In *Agathyrna* apex of tylus upturned to form a small horn, frontal angles are produced as short conical tooth and femora are armed ventrally with rows of teeth of various sizes.

General description.—Head: Wider than long, pentagonal and dorsally almost flat; tylus apically globose and entire extending anteriorly to and laterally higher than juga; jugum unarmed, narrowed, shorter than ty-

lus; gena armed with a prominent plate; antenniferous tubercle unarmed; side of head in front of eye unarmed, straight; antennal segment I robust, thickest, slightly curved outward, longer than maximum length of head and extending beyond apex of head by more than half of its length; segments II and III cylindrical and slender, segment IV fusiform; antennal segment II the longest, segment IV the shortest and III longer than I; ocelli weakly elevated; preocellar pit deep; eyes spherical and protuberant; postocular tubercle prominent, globose; buccula rounded, elevated, short, not extending beyond antenniferous tubercle, with sharp middle projection; rostrum reaching middle of sternal segment V.

Thorax.—Pronotum wider than long, trapeziform, weakly bilobed; collar wide; frontal angles feebly rounded; humeral angles rounded, not projecting; calli slightly convex. Anterior lobe of metathoracic peritreme elevated and reniform, posterior lobe sharp, small (Figs. 7, 8).

Legs.—Unarmed; tibiae cylindrical, with shallow sulcus.

Scutellum.—Triangular, longer than wide; anterior half convex, posterior half flat with a shallow lateral depression; disc with T-shape impression; apex moderately globose, curved and acute.

Hemelytra.—Macropterous, extending to the posterior margin of the last abdominal segment; claval suture evident; costal margin emarginate, apical margin straight; membrane with few of the veins furcate.

Abdomen.—Connexival segments higher than margin of hemelytron at rest; posterior angle of each connexival segment complete, not extended into a short spine; abdominal sternite with medial furrow, projecting to posterior border of sternite V.

Integument.—Body surface rather dull. Head, pronotum, scutellum, clavus, corium, thorax, abdominal sterna and genital segments of both sexes moderately to strongly punctate; connexival segments and pleural margin of the abdominal sterna smooth. Head, pronotum, scutellum, claval

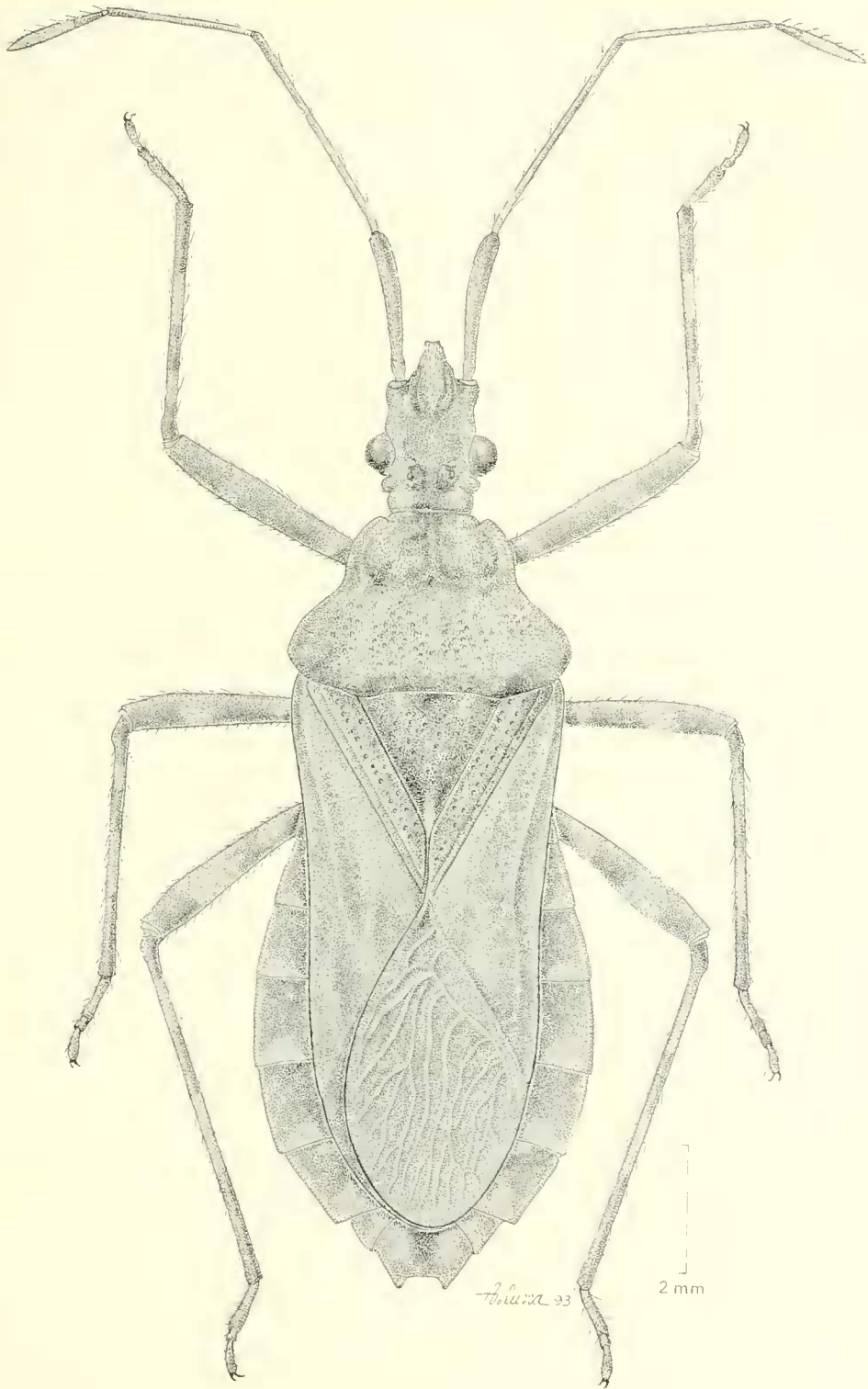


Fig. 25. Dorsal view of *Ballhygia globicolla*.

and corial veins, thorax and abdominal sterna with short, decumbent, silvery, bristle-like setae, intermixed with erect setae scattered on the pronotal and scutellar disc; antennal segments and legs with long and short setae.

Male genitalia.—Genital capsule: Posterior margin with deep U-shape concavity, enclosed by two short and robust arms (Fig. 11).

Female genitalia.—Abdominal sternite VII without plica or fissura. Genital plate: Gonocoxa I oblique, with anteroposterior enlargement; in posterior view closed; in lateral view with the external face entire and straight, ventrally rounded, without lobes; paratergite VIII short, triangular with visible spiracle; paratergite IX quadrangular (Figs. 9, 10).

Etymology.—This genus is named for Dr. Carl W. Schaefer, a distinguished American hemipterist. Gender feminine.

Type species.—*Schaeferhygia araucariana* Brailovsky and Ortega, new species.

Schaeferhygia araucariana

Brailovsky and Ortega, NEW SPECIES

Figs. 6–11, 24

Description.—Measurements: Male: Head length 1.67; interocular space 1.05; interocellar space 0.50; width across eyes 1.85; preocular distance 1.10; length of antennal segments: I, 2.10; II, 3.30; III, 2.35; IV, 1.70. Pronotum: Total length 2.35; width across frontal angles 1.50; width across humeral angles 4.40. Scutellar length 2.45; width 2.10. Total body length 12.10.

Female: Head length 1.70; interocular space 1.05; interocellar space 0.52; width across eyes 1.89; preocular distance 1.17; length of antennal segments: I, 2.15; II, 3.35; III, 2.45; IV, 1.75. Pronotum: Total length 2.45; width across frontal angles 1.50; width across humeral angles 4.60. Scutellar length 2.60; width 2.35. Total body length 12.45.

Female.—Dorsal coloration. Head dark brown with following areas ochre yellow: apex of tylus and dorsal aspect of postocular

tubercle; antennal segment I brown with ochre reflections, segments II and III orange red, IV dark orange; pronotum, scutellum, clavus and corium dark brown red with following areas ochre yellow: calli (except punctures), great portion of the middle lobe of the pronotal disc, scattered spots on posterior pronotal lobe, anterolateral angles, apex of scutellum and few spots on clavus and corium; hemelytral membrane dark ambarine with apical margin, basal angle and some cells dark brown; connexival segments III to VII bright dark red with anterior and posterior margins yellow; connexival segments VIII and IX pale orange red with anterior angle yellow; abdominal segments I to IV bright yellow, V bright dark orange and segments VI to IX bright dark brown. Ventral coloration. Head dark brown with buccula and the region adjacent to eyes ochre yellow; rostral segments I to IV chestnut orange; thorax and abdominal sternites dark brown on ochre yellow background; prosternum, mesosternum and metasternum dark brown; anterior and posterior lobe of metathoracic peritreme pale yellow; coxae red brown with an external yellow spot; trochanters yellow; anterior and middle femora with posterior third dark brown, remainder yellow with several dark red-brown discoidal spots; posterior femora with two dark red-brown rings one near the base the other distal and two yellow rings one basal (except the red-brown anterior angle), the other on middle third and scattered with several dark red-brown discoidal spots; tibiae alternating two short and diffuse yellow rings with three red-brown rings; tarsi chestnut orange; pleural segments of the abdominal sternites III to VII red brown with anterior and posterior margin yellow.

Male.—Similar to female.

Type material.—Holotype ♀, New Guinea, Araucaria Camp (800 m), 28 March 1939, L. J. Toxopeus (Neth. Ind. American New Guinea Expedition) (RNHL). Paratypes: 1 ♂, 2 ♀, New Guinea, Araucaria Camp (800 m), 16 March 1939, 2 April 1939, L.

J. Toxopeus (Neth. Ind. American New Guinea Expedition) (RNHL, UNAM).

Etymology.—Referring to the type locality.

Distribution.—Known only from the type locality, New Guinea.

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